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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/720,899

11/21/2003

Jack C. Wybenga

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EXAMINER

DOAN, KIET M

ART UNIT

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2617

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,899	<b>Applicant(s)</b> WYBENGA ET AL.	
	<b>Examiner</b> KIET DOAN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This office action is response to Remarks file on 03/17/2008.

Claims 1, 3, 8, 10, 15, 16 and 20 are amended.

### *Response to Arguments*

2. Applicant's arguments with respect to claims 1, 8, 15 and 20 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 8-10, 15-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourlas et al. (US 2002/0122395 A1) in view of Dawidownsky et al. (US 2004/0057461 A1).

Consider **claims 1, 8, 15 and 20**. Bourlas teaches for use in a point-to-multipoint wireless network, a base station for transmitting downstream data packets in a downstream traffic channel to customer premises equipment (CPE) devices and receiving upstream data packets in an upstream traffic channel from said CPE devices (Abstract, Paragraphs [0027-0029] teach base station 104 transmitting and receiving to/from plurality of CPE as in operates on point-to-multipoint wireless network),  
wherein said base station is capable of

for each of a plurality of said CPE devices, establishing a plurality of associated queues (Paragraph [0046], [0082-0083] teach using techniques of fair-weighted and round-robin queuing wherein establishing a plurality of associated queues),

receiving a link management message from a first one of said plurality of CPE devices, the link management message requesting a change in bandwidth allocation for an identified queue associated with said first CPE device, wherein said link management message is associated with a wireless media access control (MAC) layer protocol (Paragraphs [0009-0010], [0064] teach received bandwidth request and the MAC reconstruct which means changing bandwidth allocation for an identified queue associated with said first CPE device).

However, Bourlas fail to explicitly teach in response to said link management message, re-allocating bandwidth from a first queue associated with said first CPE device to a second queue.

In an analogous art, Dawidowsky teaches "Dynamic bandwidth allocation for variable bit rate streaming data". Further, Dawidowsky teaches in response to said link management message, re-allocating bandwidth from a first queue associated with said first CPE device to a second queue (Abstract, Paragraphs [0007-0008] teach the bandwidth is re-allocation to connection).

Therefore, it would have been obvious at the time that the invention was made to modify Bourlas with Dawidowsky's such that a base station for transmitting downstream data packets and receiving upstream data packets from CPE devices wherein the base station receiving link that requesting a change in bandwidth allocation and re-allocating

bandwidth from CPE to provide means for setting order and efficient processing  
bandwidth allocating to CPE device.

Consider **claims 2, 9 and 16**. The combination of Bourlas and Dawidowsky teach the base station as set forth in claim 1. Further, Bourlas teaches wherein said second queue is associated with said first CPE device (Paragraph [0046] teach using techniques of fair-weighted and round-robin queuing therefore the second queue is associated with said first CPE device).

Consider **claims 3 and 10**. The combination of Bourlas and Dawidowsky teach the base station as set forth in claim 1. Further, Bourlas teaches wherein said second queue is associated with a second CPE device of said plurality of CPE device separate from said first CPE device (Paragraphs [0082-0083]).

5. Claims 4-7, 11-14, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourlas et al. (US 2002/0122395 A1) in view of Dawidowsky et al. (US 2004/0057461 A1) and further view of Heath (US 6,842,437 B1).

Consider **claims 4, 11, 17**. The combination of Bourlas and Dawidowsky teach the base station as set forth in claim 1. Further, Bourlas teaches wherein said base station allocates bandwidth to said second queue by transmitting a first downstream data packet (Paragraphs [0036-0037] teach base station transmit downlink data to CPE).

However, Bourlas and Dawidowsky **fail to explicitly teaches** wherein said first downstream data packet comprises a Next Time Slot field capable of assigning a CPE device associated with said second queue to transmit an upstream data packet in said upstream traffic channel during a next time slot following receipt of said first downstream data packet.

In an analogous art, **Heath teaches** wherein said first downstream data packet comprises a Next Time Slot field capable of assigning a CPE device associated with said second queue to transmit an upstream data packet in said upstream traffic channel during a next time slot following receipt of said first downstream data packet (Abstract, Col.2, lines 27-65, Col.3, lines 1-21 teach processing packets in timeslots wherein the processor provide plurality of queues to order allocation bandwidth).

Therefore, it would have been obvious at the time that the invention was made to modify Bourlas and Dawidowsky with Heath's such that wherein said base station allocates bandwidth to said second queue by transmitting a first downstream data packet that comprises a Next Time Slot field capable of assigning a CPE device associated with said second queue to provide means for increase the capacity and useable bandwidth.

Consider **claims 5, 12 and 18**. The combination of Bourlas and Dawidowsky and Heath teach the base station as set forth in claim 4. Further, Bourlas teaches wherein said Next Time slot field is part of a header of said first downstream data packet (Paragraph [0040]).

Consider **claims 6-7, 13-14 and 19**. The combination of Bourlas and Dawidowsky and Heath teach the base station as set forth in claim 4. Further, Bourlas teaches wherein said first downstream data packet comprises a payload of data directed to said first CPE device/ other than said first CPE device (Paragraphs [0071-0073]).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIET DOAN whose telephone number is (571)272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah N. Charles can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kiet Doan/  
Examiner, Art Unit 2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617